

### **REMARKS**

Claims 1-25 were previously pending in this application. Claims 26 and 27 have been withdrawn as being directed to an unelected invention. By this amendment, Applicants are canceling claims 26 and 27 without prejudice or disclaimer. Claims 1, 2, 17, 18, 19 and 25 are amended herein. New claims 28 and 29 have been added. As a result claims 1-25, 28 and 29 are pending for examination with claims 1, 2, 17, 18, 19 and 25 being independent claims. No new matter has been added. Support for these amendments can be found, for example, in Figs. 2 and 3 and the associated description included in the specification as originally filed.

#### **Rejection under 35 U.S.C. §112**

The Office Action rejects claims 1-25 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Without acceding to the propriety of this rejection independent claims 1, 2, 17, 18, 19 and 25 have been amended to overcome this rejection. Accordingly, reconsideration and withdrawal of the rejection of claims 1-25 under 35 U.S.C. §112, first paragraph, is respectfully requested.

The Office Action also rejects claims 1-25 under 35 U.S.C. §112, second paragraph, as being indefinite. Without acceding to the propriety of this rejection independent claims 1, 2, 17, 18, 19 and 25 have been amended to overcome this rejection. Accordingly, reconsideration and withdrawal of the rejection of claims 1-25 under 35 U.S.C. §112, second paragraph, is respectfully requested.

#### **Rejections Under 35 U.S.C. §103**

The Office Action rejects claims 1-25 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,586,240 to Blackstone et al. (hereinafter Blackstone) in view of alleged applicant's admitted prior art. The rejection includes a rejection of each of the pending independent claims 1, 2, 17, 18, 19 and 25. Applicants respectfully assert that each of the independent claims are patentable as amended herein at least because Blackstone alone or in proper combination with the alleged applicant admitted prior art does not teach or suggest all the limitations of any of claims 1, 2, 17, 18, 19 and 25.

Blackstone teaches a vertical IGFET having a "substantially planar monocrystalline silicon wafer 12 having first and second opposing major surfaces 14 and 16 respectively. A

source electrode 18 is disposed on the first surface 14 and a drain electrode 20 is disposed on the second surface 16.” (Col. 2, lines 17-22, emphasis added.) In addition, Blackstone teaches that a “plurality of insulated gate fingers 26 are disposed along a plane which is internal to the wafer 12.” (Col. 2, lines 47-49, emphasis added.) Accordingly, Blackstone teaches that the source electrode and the drain electrode are located on opposing major surfaces and that the gate electrode is located internal to the wafer.

In contrast, claims 1 and 2 each recite, in part, an insulated gate transistor including: a source electrode laterally extending across a source region along one major side of the semiconductor body layer; a drain electrode connected to the semiconductor body layer, the drain electrode laterally spaced from the source electrode along the one major side of the semiconductor body; wherein a gate electrode and the source electrode are arranged in a wholly opposed laterally overlapping relationship to each other; and wherein the gate electrode is located on the opposite side of the semiconductor body layer to the source electrode. Applicants respectfully assert that the preceding structure is not taught by Blackstone because Blackstone does not teach or suggest at least a drain electrode laterally spaced from the source electrode along the one major side of the semiconductor body and a gate electrode located on an opposite side of the semiconductor body layer to the source electrode, as recited in independent claims 1 and 2. The preceding structural relationship is completely absent from Blackstone and the alleged applicant admitted prior art. Accordingly, claims 1 and 2 are patentable in view of Blackstone.

Similarly, Applicants respectfully assert that independent claim 17 is patentable at least because Blackstone alone or in proper combination with the alleged applicant admitted prior art does not teach or suggest a transistor comprising a drain electrode laterally spaced from the source electrode along the one major side of the semiconductor body layer, in particular, where the drain electrode and the source electrode are spaced by an intermediate region of the semiconductor body layer; and further where a gate electrode extends laterally on an opposite major side of the semiconductor body layer to the source electrode, as recited in claim 17.

Further, Applicants respectfully assert that independent claim 18 is patentable at least because Blackstone alone or in proper combination with the alleged applicant admitted prior art does not teach or suggest an insulated gate transistor comprising a semiconductor layer that provides a body portion of the transistor between a source of the said carriers and a drain for the

said carriers, wherein the drain is laterally spaced from the source along one major side of the semiconductor layer and wherein the insulated gate is located at a major side of the semiconductor layer which is opposite the one major side, as recited in claim 18.

In addition, Applicants respectfully assert that claim 19 is patentable at least because Blackstone alone or in proper combination with the alleged applicant admitted prior art does not teach or suggest a transistor comprising a source electrode on one side of a semiconductor body layer and a gate electrode in a wholly opposed laterally-overlapping relationship to the source electrode on an opposite side of a semiconductor body layer, in particular where a drain electrode is connected to the semiconductor body layer and laterally spaced from the source electrode along a major side of the semiconductor body, as recited in claim 19.

Also, Applicants respectfully assert that claim 25 is patentable at least because Blackstone alone or in proper combination with the alleged applicant admitted prior art does not teach or suggest a transistor circuit, including an insulated gate field effect transistor having a semiconductor body layer, a source electrode and a gate electrode arranged in a wholly opposed laterally overlapping relationship on opposite sides of the semiconductor body layer, in particular, where the drain electrode is connected to the semiconductor body layer and laterally spaced from the source electrode along a major side of the semiconductor body.

For at least the above reasons each of claims 1, 2, 17, 18, 19 and 25 is patentable. Each of claims 3-16, 20-24 and 28-29 directly or indirectly depend from one of the allowable independent claims and is allowable for at least the same reason as the independent claim from which they depend, respectively. Accordingly, reconsideration and withdrawal of the rejection of claims 1-25 under 35 U.S.C. §103(a) is respectfully requested.

#### General Comments on Dependent Claims

Since each of the rejected dependent claims depends from a base claim that is believed to be in condition for allowance, Applicants believe that it is unnecessary at this time to argue the allowability of each of the dependent claims individually. However, Applicants do not necessarily concur with the interpretation of the rejected dependent claims as set forth in the Office Action, nor do Applicants concur that the basis for the rejection of any of the dependent claims is proper. Therefore, Applicants reserve the right to specifically address the patentability of the dependent claims in the future, if deemed necessary.

**CONCLUSION**

It is respectfully believed that all of the rejections, objections, or comments set forth in the Office Action have been addressed. However, the absence of a reply to a specific rejection, objection, or comment set forth in the Office Action does not signify agreement with or concession of that rejection, objection, or comment. In addition, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Furthermore, nothing in this paper should be construed as intent to concede any issue with regard to any claim.

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' representative, Mark L. Beloborodov, Esq. at (781) 418-9363, to discuss any outstanding issues relating to the allowability of the application.

Respectfully submitted,  
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